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SUBJECT: The Good, the Bad, and the Ugly: Balancing Development and Environmental Protection in the Aqaba Area

REF: AMMAN 2017

- (U) Sensitive but unclassified. Not for internet distribution.
- ¶1. (SBU) SUMMARY. The Aqaba Special Economic Zone Authority (ASEZA) manages the city of Aqaba and its surrounding 26 kilometers of Jordanian coastline. Roughly 30 percent of this strategic and precious real estate is a protected marine habitat. During meetings regarding environmental issues in Aqaba, ESTH Hub officer observed the area's good (water, wastewater use, and protected coral reefs), the bad (increased environmental pressures from rapid development), and the ugly (phosphate dust clouds and a gypsum mountain). ASEZA's environmental commissioner gets good reviews for safeguarding environmental concerns amidst rapid development. However, going forward, Aqaba and the Jordanian coastline will be an important stage to see whether the ecosystem can be protected in the rapid development that now defines the area. END SUMMARY.

Aqaba's Strategic Location

- 12. (U) ASEZA manages the 26 kilometers of Jordanian coastline at the tip of the Gulf of Aqaba (GOA) (reftel). Aqaba is many things: the entry point for maritime cargo; a symbol of Jordanian aspirations for increased trade; a key location in Jordan's growing arsenal of tourism hot-spots; a visible pilot city for self-governance and economic growth; and the starting point for a proposed Red Sea-Dead Sea water pipeline, which to many in the Government of Jordan is the long-term savior for the country's water crisis.
- 13. (SBU) During a recent orientation trip, ESTH Hub officer met with the ASEZA Environmental Commissioner, the Aqaba Water Company, the Marine Science Station, the Jordan Society for Sustainable Development (local NGO), the USAID funded AZEM project, and the Aqaba Industrial Estate. USAID has played a significant role in the establishment and development of ASEZA. ASEZA Commissioner for Environment, Dr. Bilal Bashir, one of ASEZA's six commissioners, has the difficult job of balancing the many pressures of growth in industry, tourism, and development with maintaining requisite environmental safeguards. New projects require environmental impact assessments (EIA) as well as a civil defense study and a public health impact assessment. The Environmental Commissioner received high marks from all contacts for striking the right balance and

promoting the ASEZA environmental requirements through speedy responses to development concerns. However, going forward, Aqaba and the Jordanian coastline present an important stage for the balancing act of matching development and political pressures with maintaining the critical eco-system.

## The $\operatorname{Good}$ - $\operatorname{Water}$ , $\operatorname{Wastewater}$ , and $\operatorname{Coral}$ $\operatorname{Reefs}$

- 14. (U) Coral Reefs/Marine Park: 7 km of the 26 km Aqaba area coastline (approximately 30 percent) is a protected Marine Park and vibrant coral reef habitat, established with support from the Middle East Regional Cooperation (MERC) funded Jordan-Israel-Palestinian cooperative project. The Marine Science Station (MSS) in Aqaba was founded in 1974 as a collaborative project between the University of Jordan and Yarmouk University. The eight researchers at the MSS collaborate with the Interuniversity Institute (IUI) in Israel in monitoring the GOA ecosystem. Eight monitoring stations along Jordan's coastline complement the four Israeli monitoring stations in the GOA. MSS researchers conduct semi-annual joint cruises with Israeli researchers in the GOA. MSS credits their collaboration with Israeli counterparts for a recent decision by Israel to move a fish-farm in the GOA to an inland location, which will improve the coral habitat. MSS and IUI will collaborate as consultants for the entity awarded the EIA contract for the Red-Dead pipeline project.
- 15. (U) The MSS gives good marks to GOA water quality. The Red Sea is a low nutrient water body, and the coral reefs are healthy despite the increase in nutrients deposited from the land water. MSS credits this to improved monitoring, EIA's, and the prohibition on wastewater discharge into the gulf. The strong biodiversity in the GOA is evidenced by MSS estimates of 500 fish species (the Mediterranean has roughly 600 species).

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- 16. (SBU) Water: Aqaba residents enjoy a continuous 24-hour supply of the best-tasting water in Jordan. The roughly 13.5 million cubic meters (MCM) consumed by Aqaba comes through a pipeline from the Disi aquifer on the Jordan-Saudi Arabia border. Despite a 10-day outage in the fall of 2006 when flooding in the nearby valley damaged the pipeline, Aqaba Water Company (AWC) General Manager Imad Zurikat was roseate regarding its ability to cope with increasing demand. NOTE: Earlier discussions with Embassy Officers have revealed that Zurikat is concerned about the impact that rapid development in Aqaba will have on water resources, and is uncertain how long the Disi aquifer will last. Official GOJ estimates state the aquifer will last for 100 years, though other water experts have cast doubt on this claim. END NOTE.
- 17. (U) AWC, formed in 2004 with assistance from USAID, functions as a commercial entity with relative autonomy from the Water Authority of Jordan (WAJ). GM Zurikat applauded the flexibility and faster decision-making process the structure provides. The 274-employee organization is not tethered to the civil service bureaucracy, and performance-based salary revisions of 70-200 percent for key employees have resulted in improved morale. Zurikat declared AWC a success based on improved service, faster response times to consumer complaints or issues, a reduction in accounts receivable from JD 5.5 million (\$3.9 million) to JD 1.5 million (\$1.1 million), renovation of the water networks, and an increased degree of automation. AWC is also profitable, having reduced the approximately 34 percent of unaccounted water in 2004 to 27 percent, partly attributable to improved metering and billing, as well as improved response times to fix leaks.
- 18. (U) An August 12 AWC decision approved the development of an expandable capacity desalination plant in south Aqaba. A consultant will develop the terms of reference for a build-own-transfer (BOT) arrangement for this plant to be operational in 2-3 years. AWC is also consulting with the USG-supported Middle-East Desalination Research Center (MEDRC) based in Oman. AWC projects that the cost of water from this plant will be comparable to the total real cost of the water from the Disi aquifer. Zurikat believes this expandable plant will provide the flexibility to cope with projected increases in water demand for municipal, commercial, and industrial

19. (U) Wastewater: Purple colored pipelines snake along the ground in Aqaba carrying treated municipal wastewater. A bird sanctuary developed by the Jordan Society for Sustainable Development (NGO) is using the treated wastewater as well. The recently constructed secondary treatment plant, completed with USAID support, provides water for industry and landscaping, while the upgraded waste stabilization pond system provides irrigation water for palm trees and forests, aiding ASEZA in ensuring compliance with the zero wastewater discharge policy into the Gulf of Aqaba. ASEZA has created a special outreach group to educate school children and prevent them from cutting the purple pipes. USAID has also supported various outreach programs on wastewater reuse issues and ground water quality and abstraction issues.

## The Bad - Environmental Pressures on the Rise

110. (U) The city of Aqaba is transforming quickly. The downtown is ringed by construction zones. The current capacity of 1,500 hotel rooms is expected to double to 3,000 within a year. The population of 100,000 is predicted to double by 2020. The 6,000 cars in the city swell to 12,000 most weekends. During long holiday weekends, ASEZA projects that a transient population of 150,000 can enter the city, overwhelming existing capacity and leading to people sleeping in parks. New development areas of Saraya, Tala Bay, Mission Hills, and Horizon are under construction, and include hundreds of hotel rooms, residential units, and swimming pools. Another larger scale development, Ayala, has just been de-mined and construction should commence shortly. An old naval facility in the downtown area will be converted to a Marriott hotel to compete for beachfront access with other five-star resorts. Despite the development barrage, there are no water conservation or demand reduction programs in place. The two wastewater treatment plants are already running at full capacity and will need to be expanded in the near future.

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- 111. (U) The plan to move the Aqaba port to the southern tip of Jordan's coastline is ambitious, but has not yet completed an EIA or a general feasibility assessment. Funding for this ambitious project also is uncertain. It is already raising the ire of environmentalists as the relocated port would infringe on the lower edge of the 7 km of the protected marine park. As industrial and tourism density increase, the likelihood of sea-craft accidents and disputes on utilization of water ways in the GOA is on the rise. Increasing amounts of garbage are also entering the waters (reftel).
- 12. (U) Heavy industry is concentrated along the South Aqaba coast; a thermal power plant which provides much of Jordan's electricity, the oil terminal, rice and grain terminals, are all packed in the area. Natural gas and electricity pipelines from Eqypt emerge from an 800-meter depth at the bottom of the GOA into the port area. The planned AWC desalination plant will also be located here. A new parallel industrial road has been built to insulate regular/tourist traffic from the increased industrial activity.

## The Ugly - Phosphate/Potash Dust, Gypsum Mountain

- 113. (SBU) Aqaba's commercial port is adjacent to the dense downtown area. The loading pipelines/docks that move the phosphate and potash onto the ships are visible from the downtown resorts. A tourist observing the loading process would be alarmed at what appears to be a large fire engulfing the ship, and in some case, the whole mountainside. The dust blows with the wind. 300 days of the year it blows southwards away from the city; another 60 days it can blow into the city causing public health concerns and tourism "turn-offs."
- $\underline{\P}14$ . (SBU) Blurring the skyline and creating an environmental conundrum is a gypsum mountain, a sulphate mineral byproduct from work by the Jordan Phosphate Mining Company. ASEZA will not permit the gypsum to be dumped into the sea (as many other countries do)

because of the impact on coral reefs, nor will it allow landfill burial due to possible groundwater contamination. Stumped, with no technical solution in sight, ASEZA is seeking help to start an environmental audit.

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